Pioneer

MINIDISC RECORDER

MJ-L77

Operating Instructions

Thank you for buying this Pioneer product.

Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.

In some countries or regions, the shape of the power plug and power outlet may some-times differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

THE POWER SWITCH IS SECONDARY CONNECTED AND THEREFORE DOES NOT SEPARATE THE UNIT FROM MAINS POWER IN THE STANDBY POSITION.

This product complies with the Low Voltage Directive (73/23/EEC), EMC Directives (89/336/EEC, 92/31/EEC) and CE Marking Directive (93/68/EEC).

IMPORTANT 1

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

Blue : Neutral
Brown : Live

If the plug provided is unsuitable for your socket outlets, the plug must be cut off and a suitable plug fitted.

The cut-off plug should be disposed of and must not be inserted into any 13 amp socket as this can result in electric shock. The plug or adaptor of the distribution panel should be provided with a 5 amp fuse. As the colours of the wires in the mains lead of this appliance may not correspond with coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Do not connect either wire to the earth terminal of a three-pin plug.

NOTE

After replacing or changing a fuse, the fuse cover in the plug must be replaced with a fuse cover which corresponds to the colour of the insert in the base of the plug or the word that is embossed on the base of the plug, and the appliance must not be used without a fuse cover. If lost, replacement fuse covers can be obtained from your dealer.

Only 5 A fuses approved by B.S.I. or A.S.T.A. to B.S. 1362 should be used.

[For MiniDisc Recorder MJ-L77]

CAUTION

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.
The following caution label appears on your unit.

Location: Bottom of the unit.

CLASS 1
LASER PRODUCT

US and foreign patents licensed from Dolby Laboratories Licensing Corporation

INFRINGEMENT OF COPYRIGHT

Recording and playback of copyrighted material may require consent. See the Copyright Design and Patent Act 1988.

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Opening the Box

Thank you for buying this Pioneer product. Before starting to set up your new minidisc recorder, please check that you've received the following supplied accessories in the box:

- Optical digital cable
- Power cable
- Warranty card
- This instruction manual

Using this manual

This manual is for the MJ–L77 Minidisc Recorder. It is split into two sections, the first covering set up, and the second, operation. Set up, which starts here, covers all aspects of getting your new minidisc recorder up and running with the rest of your XC–L77 stereo system. If this is the first time you've used minidiscs, we recommend reading the *About Minidiscs* section starting on the following page before using the recorder for the first time.

In the second section of the manual, starting on page 10, you'll learn how to use all the features of the MJ–L77, from basic playback to disc editing. The final part of the manual provides reference information on error messages you might encounter during use, a troubleshooting page, and technical specifications.

Hints on Installation

We want you to enjoy using the MJ–L77 for years to come, so please bear in mind the following points when choosing a suitable location for it:

DO...

- ❖ Use in a well-ventilated room.
- ❖ Place on a solid, flat, level surface, such as a table, shelf or stereo rack.

DON'T...

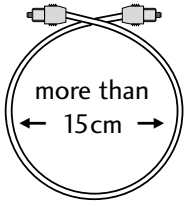
- ❖ Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.
- ❖ Place on a window sill or other place where the recorder will be exposed to direct sunlight.
- ❖ Use in an excessively dusty or damp environment.
- ❖ Place directly on top of an amplifier, or other component in your stereo system that becomes hot in use.
- ❖ Use near a television or monitor as you may experience interference—especially if the television uses an indoor antenna.
- ❖ Use in a kitchen or other room where the recorder may be exposed to smoke or steam.
- ❖ Place on an unstable surface, or one that is not large enough to support all four of the unit's feet.

Avoiding condensation problems

Condensation may form inside the recorder if it is brought into a warm room from outside, or if the temperature of the room rises quickly. Although the condensation won't damage the recorder, it may temporarily impair its performance. For this reason you should leave it to adjust to the warmer temperature for about an hour before switching on and using.

Tip

Take care when installing or storing optical cable.



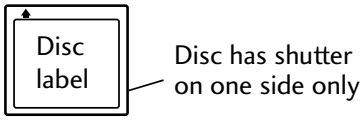
Do not bend the cable around sharp corners and coil loosely when storing.

About Minidiscs

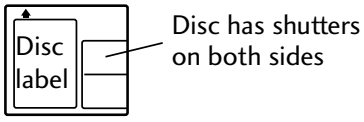
Minidisc mark—all MDs carry this logo

Minidisc, or MD as it's usually called, is an extremely flexible and convenient format on which you can both playback and record high-quality digital audio. Because it's a disc, MD has many of the advantages of compact disc—you can jump directly to any track on the disc, program the playing order, instantly skip over tracks you don't want to play or back to tracks you want to play again, and so on. The really great thing about MD though is the flexibility it offers when recording. Things that were impossible using analogue cassette tape, such as reordering tracks, programming track names, and deleting tracks without leaving any gaps are all easily achieved if you're using MD. Minidiscs have other advantages over cassette tape; the recorder automatically finds the next blank space to record on, and can tell you how much room there is left on a disc before you start recording. When you delete something from the disc, the time available for recording is automatically updated.

If this is the first time you've used MD, please take a few minutes to read through this section of the manual. It gives information on how to handle the discs properly, the different kinds of disc available, and some basic MD characteristics.



Playback-only MD

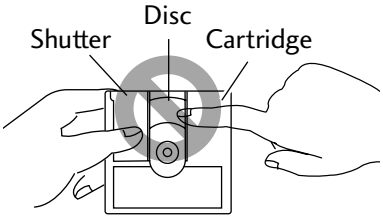


Recordable MD

Different kinds of MD available

All MDs carry the MD logo shown at the top of the page. Do not use any disc which does not have this mark.

There are both recordable and non-recordable (playback-only) MDs. Commercially available music on MD generally comes on discs which are playback only. The diagrams left show the differences between the two types.



Don't touch the disc!

Handling MDs

The actual disc that contains the audio is quite delicate and so is protected against dust, fingerprints and so on by an outer cartridge. Don't force open the disc shutters to expose the disc, and never touch the disc itself. Also, do not attempt to disassemble the disc cartridge.

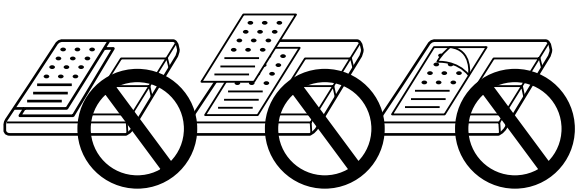
If the disc cartridge becomes dirty or stained, wipe clean with a soft, dry cloth.

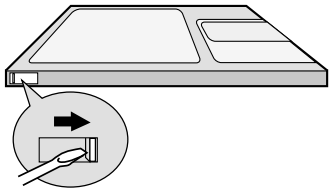
Storing and labelling MDs

When you're not playing a minidisc, put the disc cartridge back in the case for storage. Avoid storing or leaving discs in very hot or humid areas, such as in a car in summer. Also avoid leaving discs in direct sunlight, or in places where sand or grit might get into the disc cartridge.

Recordable MDs come with self-adhesive labels to stick on the disc cartridge to tell you what's recorded on the disc. Always stick the label in the area provided, avoiding the disc shutter and the edges of the disc.

If the disc label starts to peel off at the corners, remove the label and replace it with a fresh one—don't simply stick another label on top of the old one.





Use a screwdriver, pen or fingernail to open or shut the erase-protect tab

Avoiding accidental erasure

Once you've recorded a disc, it's a good idea to protect it against accidental erasure by sliding the tab on the side of the disc to the open position.

If you want to erase or re-record the disc, simply slide the tab back to the closed position before loading the disc into the recorder.

Analogue and digital recording

Whatever you record onto an MD is stored on the disc as digital data (in other words, numbers). This is what we mean when we say that MD is a digital format. However, what you feed into the MJ–L77 to record can be either analogue (such as the output from a turntable or a tuner), or digital (such as the direct digital output from a CD player, or another MD recorder).

If you record an analogue signal, the recorder has to first change it into a digital form before writing it onto the disc.

If you're recording from another digital format, like a CD, it makes sense to just record the digital data directly. For this purpose the MJ–L77 has a digital input which you can connect to either the XC–L77 CD receiver, or an external digital source, such as another MD unit, DAT recorder or DVD player. When recording digitally there are a couple of points to bear in mind.

All digital audio has something called a 'sampling rate', which is measured in kHz (kilohertz). The quality of the final sound depends to a large extent on this: the higher the better.

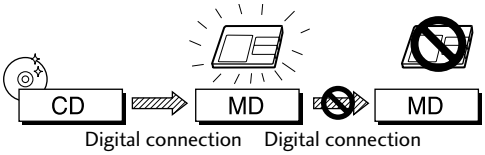
Compact discs have a sampling frequency of 44.1kHz, which happens to be the same as MDs. This means you shouldn't run into problems making digital recordings of CDs or other MDs (although see *Copying restrictions* below for exceptions to this).

Other digital sources you may come across (DAT, digital satellite and DVD) often use different sampling rates—specifically, 32kHz and 48kHz. The MJ–L77 can handle these too, and, at the time of writing, these are by far the most common sampling rates around. There is, however, a trend towards higher sampling rates. Some DVD discs and DAT tapes are recorded at 96kHz. The MJ–L77 cannot handle this rate, and you'll have to record via the analogue terminals of the DVD or DAT recorder to the auxilliary inputs of the XC–L77 CD receiver.

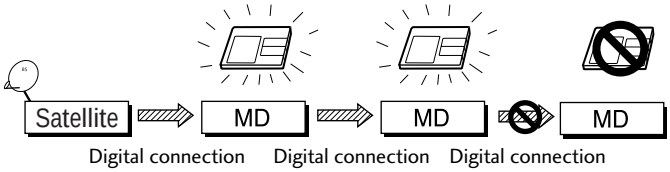
Copying restrictions

You may run into problems making digital copies of some sources, even when the sampling rate is compatible. Some DVD discs disable the DVD player's digital output to prevent illegal digital copying (you can still record via the analogue outputs though).

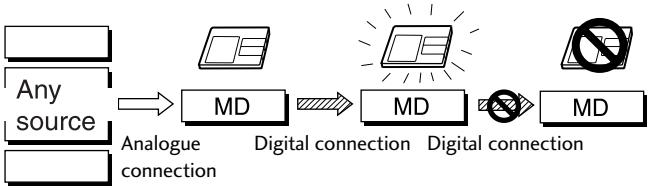
Another restriction on digital copying comes from something called SCMS, which stands for Serial Copy Management System. This stops you making multiple-generation digital recordings and is aimed at preventing illegal digital copying of copyright material. The number of generations that SCMS will let you make depends on the source.



Digital audio from CD, MD, DVD or DAT can be copied digitally for one generation only.



Audio from digital satellite can usually be copied digitally for two generations. (Sometimes just one generation is possible.)



A recording made from any source via analogue inputs can be digitally copied once only.

About the Table of Contents

When you load any kind of minidisc into the recorder, the first thing it does is read a section of the disc called the Table of Contents, or TOC. Just as the contents page of a book tells the reader what each chapter is about and where to find it in the book, the TOC tells the recorder where the tracks are on the disc, the name and length of each track, the name of the disc, and so on. In the couple of seconds it takes to read all this, the recorder's display shows the message **MD TOC READ**.

Since you can change what's on a recordable MD, the Table of Contents is rewritable, and so is called the User Table of Contents, or UTOC for short. If you have a recordable disc loaded in the recorder and hit eject, the recorder automatically updates the UTOC before giving you the disc back. In both cases, the message **MD TOC WRITE** appears in the display during the UTOC updating process.

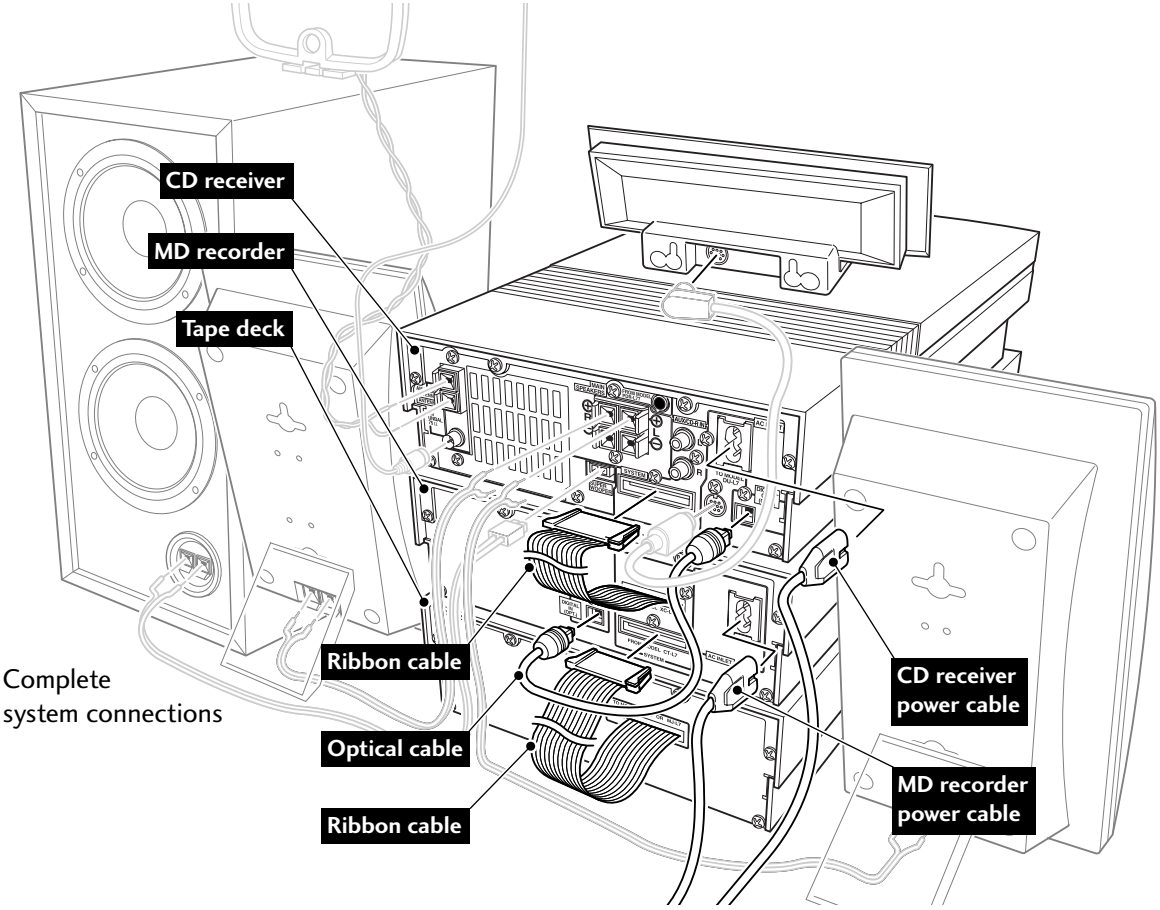
The UTOC is vital for the recorder to be able to play a disc correctly. Until you hit eject, the recorder stores all the current session's recording and editing information in its memory. If there's a power failure or you accidently unplug the recorder before it's had a chance to write the UTOC there's a danger that all that disc information will be lost. To prevent this, plug the recorder back in as soon as possible and eject the disc. If you leave the unit unplugged for more that a day, you'll lose the UTOC information stored in memory and with it, that session's recordings/edits.

About MD System Limitations

The sophisticated playback, editing and recording features available to you with MD are possible because of the way in which the sound data is stored on the disc together with the system of TOCs and UTOCs described above. There are times however when you might encounter odd side-effects of the way the system works. These are not malfunctions, but limitations of the system. Below is a list of symptoms you may run across depending on the way you record or edit discs.

Symptom	MD System Limitation
The recorder shows the message **TOC FULL** even though there are fewer than 255 tracks on the disc (the maximum possible).	Although when you listen to a disc it appears that each track sits end to end in an unbroken sequence, the actual audio information may be scattered all over the disc in different places. The more times you record and edit things on a disc, the more scattered the information becomes. Usually, this doesn't affect the user; the recorder keeps track of everything using the UTOC. However, because the recorder needs to know where every little gap is on the disc (and counts each one as a track, although you don't see it), the UTOC eventually fills up, and the recorder won't let you record anything else on that disc. Erasing a complete track, or the entire disc cures the problem.
The recorder shows the message **DISC FULL** before you've reached the maximum recording time of the disc.	If a disc is scratched or damaged in some way, that part of the disc becomes automatically unavailable for recording. In this case, the recorder shows the reduced recording time available.
The amount of recording time available doesn't increase after erasing some short tracks.	If you erase a track which is less than 12 seconds long, the recorder can't add that time to the available recording time.
The total recorded time, plus the recording time remaining, appears to be less than the length of the disc.	Recording time on a disc is divided into two second blocks—the smallest 'unit' of a minidisc. Although a piece of audio data may be shorter than this, it still takes up two seconds on the disc, and the remainder is 'lost' (until the whole block is erased). As the number of these partially used blocks builds up, you might notice that the total disc length appears to shorten. (See also the note about damaged discs above.)
The recorder won't allow you to combine two tracks into one during editing.	There are two situations where you can't use the combine edit feature: ❖ When one of the tracks was recorded using the digital input, and the other using the analogue input. ❖ When one track was recorded in long-play mono mode, and the other in normal stereo mode.
The sound is interrupted during fast forward or reverse.	As we mentioned above, the more re-recording and editing you do on a disc, the more scattered the audio information on the disc becomes. During fast forward or reverse this may show up as interrupted sound.

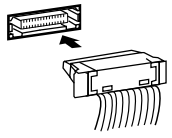
Connecting to the Rest of the System



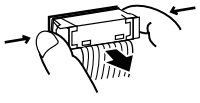
Complete system connections

Ribbon cables

IMPORTANT: Never connect or disconnect the system ribbon cables while the power plug is connected to the wall outlet. Doing so may damage the unit.



To insert, hold the connector and push firmly into the socket until you hear it click home.



To remove, hold the connector securely on either side with thumb and forefinger and pull out from the socket.

Important: Before making or changing any rear panel connections, make sure that all the components are switched off and unplugged from the power supply.

The MJ–L77 connects directly to the XC–L77 CD receiver, so if you also have the CT–L77 tape deck and are adding it to your existing system, you'll need to disconnect the tape deck from the CD receiver first. If you're setting the whole system up for the first time, be sure to also refer to chapter 2 of the XC–L77 manual for full installation and connection details.

There are two audio connections to make:

1. MD ribbon cable to the CD receiver
2. Optical cable from the CD receiver to the MD recorder

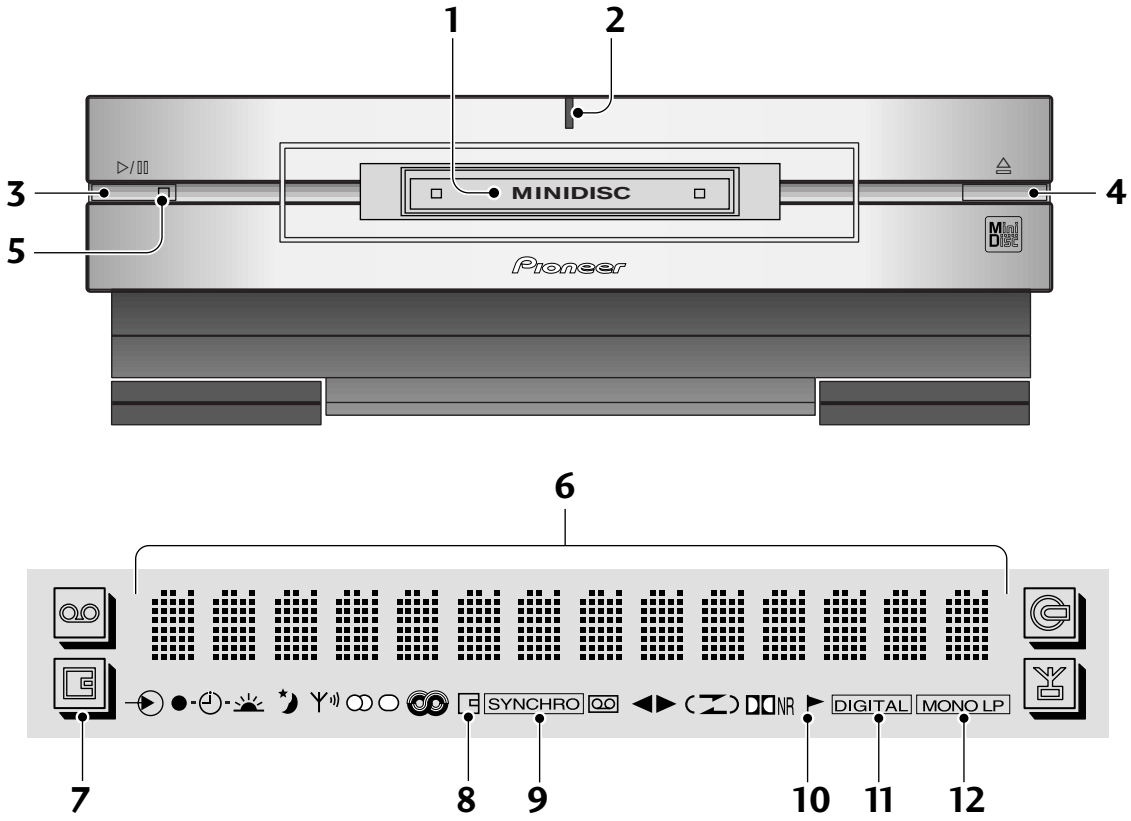
Additionally, if you have the CT–L77 tape deck:

3. Tape deck ribbon cable to the MD recorder

Having connected these up, you're ready to connect the power cables—one from the CD receiver and one from the MD recorder.

Note: Power must be connected to the CD receiver whenever you use the MD recorder—the MJ–L77 will not work independently of the rest of the system.

Front Panel Controls and Display



- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY", and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Front Panel

1 **MD loading slot**

2 **Power light** – lights when the unit is on.

3 **►/II button** – Press to play an MD, or pause one that's already playing (press again to restart playback). In record mode, also use to start or pause recording.

4 **⏏ button** – Press to eject the MD.

5 **Play light** – Lights when an MD is playing; blinks when paused.

Display

6 **Character display**

7 **MD function** – Highlights when in MD recorder mode.

8 **MD record indicator** – Lights during record or record-pause mode.

9 **Synchro indicator** – Lights in CD or tape synchro-recording mode.

10 **Auto mark indicator** – Lights when automatic track numbering is switched on.

11 **Digital indicator** – Lights when MD recorder is in digital signal input mode.

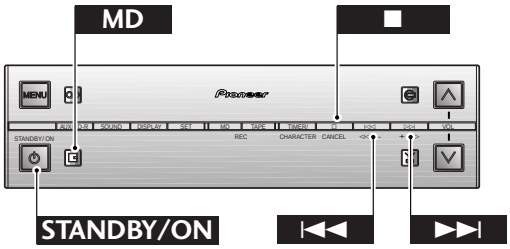
12 **Mono LP indicator** – Lights when recording in mono/long-play mode.

Playing an MD

You should now have your MD recorder connected up to the rest of the system, and plugged into the power outlet. This chapter takes you through the basics of using the MD recorder—playing discs and making a recording from the CD receiver.

When following the steps below, use either a playback-only disc, or a recordable MD that already has some tracks recorded on it.

All MDs indicate which way they should be loaded into the player/recorder



CD 0 0:00 DIGITAL

Display shows the CD player as the current function (no disc loaded)

1 Switch on.

You can use the **STANDBY/ON** button on either the remote control or the CD receiver unit to do this.

The display lights and briefly indicates the current volume level before showing the current function (e.g., CD).

Note: The complete system, including CD receiver and optional tape deck consumes a small amount of electricity (about 1W) in standby mode.

MD TOC READ DIGITAL

MD recorder reads the table of contents when you load a disc

2 Load an MD.

Gently push the MD into the slot in the direction indicated on the disc cartridge. The recorder pulls the MD into the recorder automatically.

If you've just loaded a playback-only disc or an erase-protected recordable disc (i.e., the erase-protect tab is open), then the disc should already be playing. This feature is called Auto Play.

MD 5 43:24 DIGITAL

Display showing an MD with 5 tracks and a total playing time of 43:24

TAKE FIVE DIGITAL

If a track has been named, the name appears in the display while the track is playing

3 Press the MD button to start playback.

Alternatively, press ▷/▯▯ on the front panel of the recorder.

This won't be necessary if Auto Play has already started playback!

4 To pause playback, press the MD button.

To resume playback, press again.

You can also use the MD recorder's front panel controls:
Press ▷/▯▯ once to pause playback; press again to resume.

5 To fast-reverse or fast-forward, press and hold ⏮ or ⏭.

You should hear snippets of sound to give you some idea of where you are in the track. Release the button to resume normal playback.

Continues

6 To skip back or forward to another track, press (but don't hold) ⏮ or ⏭

Pressing ⏭ once skips to the start of the next track on the disc. Further presses take you to subsequent tracks.

Pressing ⏮ once takes you to the beginning of the current track. Further presses skip to the start of previous tracks.

You can use the track skip buttons while the disc is paused, too. The track number changes while the disc remains paused.

7 To stop playback, press ⏹

If the disc was paused, then the pause mode is cancelled.

8 To eject the disc, press ⏏

This button is on the front panel only.

Changing the Display

You can choose to display various kinds of information during playback, recording and stop modes. Switch between them by pressing the **DISPLAY** button.

Disc name display

Disc total display

Record remain display

Clock display

Calendar display

Track name display

Track time elapsed/Track remain displays

All remain display

When an MD is stopped

- **If the display shows the disc name/total playing time:**

DISC NAME - displays the name of the disc, if one has been programmed
DISC TOTAL - displays the total playing time of the disc
REC REMAIN - displays the amount of recording time available
CLOCK - displays the current time and date
CALENDAR - displays the current date
DIMMER - adjusts the display brightness (see page 43 of XC–L77 manual)

- **If the display shows a track name/playing time of a track:**

TRACK NAME - displays the name of the current track, if one has been programmed
TRACK TIME - displays the playing time of the current track
CLOCK - displays the current time and date
CALENDAR - displays the current date
DIMMER - adjusts the display brightness (see page 43 of XC–L77 manual)

When an MD is playing

TRACK NAME - displays the name of the current track, if one has been programmed
TRACK TIME ELAPSED - displays time into the current track
TRACK REMAIN - displays how long the current track still has to play
ALL REMAIN - displays how long the disc still has to play
CLOCK - displays the current time and date
CALENDAR - displays the current date
DIMMER - adjusts the display brightness (see page 43 of XC–L77 manual)

Track name display

Recording time elapsed display

Record remain display

When recording an MD

TRACK NAME - displays the name of the current track, if one has been programmed
RECORDING TIME ELAPSED - displays time into the current track
REC REMAIN - displays the amount of recording time available
CLOCK - displays the current time and date
CALENDER - displays the current date
DIMMER - adjusts the display brightness (see page 43 of XC–L77 manual)

Introduction to Recording MDs

If you've already read the *About Minidiscs* section (pages 5–8), you'll already have a good idea of what MD is capable of.

Analogue and digital recording

The MJ–L77 can record through either analog or digital inputs—analog via the ribbon cable connections; digital via the optical cable. Generally, the recorder automatically selects the digital input to record from if there is a signal present. If not, then the analog input is used. However, you can also specify that the analog input should be used at all times—even when recording from the CD receiver.

If you need to record from an external analogue component, such as a turntable, then recording is via the auxilliary jacks on the CD receiver unit. If the external component is digital, such as a DAT player, and it has an optical digital out, you can connect it directly to the MJ–L77 by unplugging the optical cable from the CD receiver and plugging it into the external component.

Recording levels

Whether you're recording through the digital or the analogue inputs, there's no need to set the recording level. In the case of analogue, the level is adjusted automatically. With digital, the data that makes up the sound is simply copied to the disc unaltered. Also, when recording, the volume, tone and balance controls have no effect on the recording. This means that you can record something with the volume turned right down, if you want.

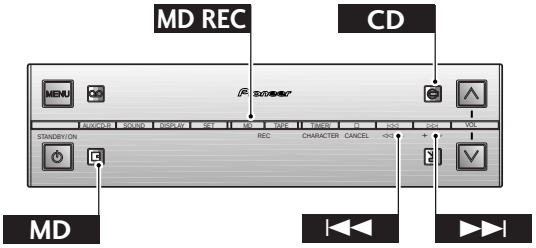
Track numbering

The MJ–L77 also takes care of numbering tracks for you. When recording a CD or MD through the digital input, track numbers follow the material being recorded. When recording from any component through the analogue inputs, or from a digital source other than CD or MD, the recorder starts a new track whenever it detects more than 1.5 seconds of silence in the source material. If you want to change the track numbers that are assigned automatically, there are various editing features at your disposal to renumber tracks as you wish.

Once recording has started, you can't switch to another component until either the recording has stopped, or you pause the recording. So, for example, you can't switch over to the tuner while you're recording a CD.

Automatically Recording from a CD

This feature makes recording a CD as simple as possible by automatically starting and stopping the CD and MD together. There are two modes: 1 track synchro records just a single track, then stops; all-track synchro records the whole disc.



Display showing that you've loaded a blank disc

1 Load a recordable MD.

Make sure that the erase-protect tab is closed so that you can record.

If there's already material recorded on the disc, the recorder automatically records new material after what's already there—there's no need to search for blank space to record on.

You can find out how much blank space you have left on the disc by switching the display mode at this point. See page 12 for how to do this.

2 Press CD to switch to the CD player.

The CD display showing a disc with 14 tracks and a total playing time of 59:47

3 Load the CD you want to record.

Press ☐ to make sure the disc is stopped.

4 If you want to record just one CD track, select it using the |◄◄ and ►►| buttons.

The **SYNCHRO** indicator lights and the red MD record indicator flashes

5 Press MD REC.

The recorder goes into record-pause mode, waiting for you to start the CD player.

Once recording starts, the MD record indicator remains lit

6 Press CD to start the CD playing.

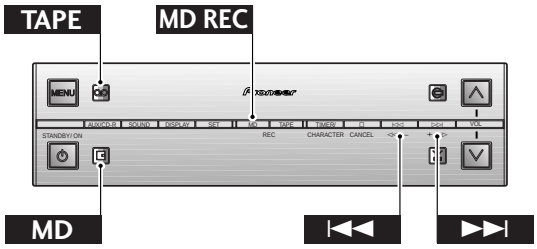
Recording starts automatically with the CD.

Should you want to stop recording before the track/disc has finished playing, simply press ☐ any time during the recording.

Once the track or disc has finished, the recorder goes into record-pause mode. At this point, you can either press ☐ to finish the recording session, or continue recording a different disc (or tracks) by repeating steps 3, 4 and 6.

Automatically Recording a Tape

Use this feature if you want to transfer material from tape to MD. Recording starts and stops automatically with the tape, and you can set the tape to auto-reverse so that you can copy both sides of the tape all in one go.



Recordable MD with 3 tracks already recorded

Recording time available is shown as 62:56

1 Load a recordable MD.

Make sure that the erase-protect tab is closed so that you can record.

If there's already material recorded on the disc, the recorder automatically records new material after what's already there—there's no need to search for blank space to record on.

You can find out how much blank space you have left on the disc by switching the display mode at this point. See page 12 for how to do this.

2 Press TAPE to switch to the tape deck.

3 Load the tape you want to record.

Press ☐ to make sure the tape is stopped.

Display shows tape direction set to 'forward', auto-reverse off and Dolby NR on

4 Set the reverse mode, play direction and Dolby NR as required.

If you want to record the whole tape, set the reverse mode to ⮌ ; if you just want to record just one side, set it to ⇄ .

If the tape was recorded using Dolby NR, then Dolby NR should be switched on for best results.

See pages 22 and 33 of the XC–L77 manual for detailed instructions.

The **SYNCHRO** indicator lights and the red MD record indicator flashes

5 Press MD REC.

The recorder goes into record-pause mode, waiting for you to start the tape.

Once recording starts, the MD record indicator remains lit

6 Press TAPE to start the TAPE playing.

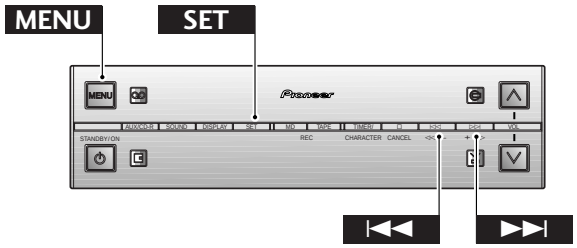
Recording starts automatically with the tape.

Should you want to stop recording before the tape has finished playing, simply press ☐ any time during the recording.

Once the tape (or side of the tape) has finished, the recorder goes into record-pause mode. At this point, you can either press ☐ to finish the recording session, or continue recording a different tape by repeating steps 3, 4 and 6.

Using the Menu System

Access to many of the less commonly used functions of the XC–L77 is via a menu system. Each component (CD player, tuner, tape deck, auxiliary, and this MD recorder) has it's own set of menu options, but access to all of them is from the **MENU** button.



Pressing **MENU** displays the first menu option for the component you're currently using. You can display the next option by pressing ⊳⊳I, or the previous one by pressing I⊲⊲. The menus wrap around, so once you get to the end of the list, pressing ⊳⊳I again takes you back to the first item.

To select the menu option currently displayed, press the **SET** button. This often takes you to a further sub-menu, which may simply consist of two settings (such as turning something on or off), or may have more choices. Either way, choose between different options with the I⊲⊲ and ⊳⊳I buttons, and select one by pressing **SET**.

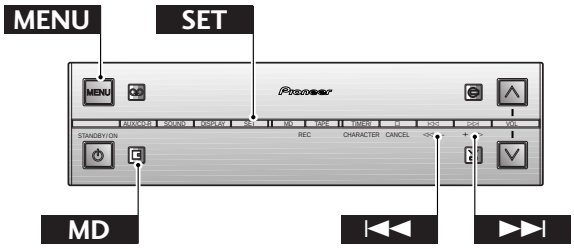
If you make a mistake while in the menu system, simply press □ to cancel and exit.

The MD menu functions

- **Playback features accessed via the menu button are:**
  PROGRAM - Specify the track order of a disc (page 17)
  RANDOM - The recorder plays the tracks in a random order (page 19)
  REPEAT - Set the current track or disc to repeat play (page 18)
- **Recording features accessed via the menu button are:**
  AUTO MARK - Specify when a new track should be started (page 20)
  INPUT SELECT - Select either analogue– or digital-input recording (page 21)
  RECORD MODE - Specify regular stereo, or long-play mono recording (page 20)
- **Editing features accessed via the menu button are:**
  ALL ERASE - Delete all tracks on a disc (page 30)
  COMBINE - Join two tracks together into one new track (page 27)
  DISC NAME - Give a disc a name that will show up when you load the disc (page 25)
  DIVIDE - Split a single track into two separate tracks (page 27)
  MOVE - Give a track on the disc a new track number (page 28)
  PROGRAM MOVE - Reorder tracks according to the program play order (page 28)
  TRACK ERASE - Delete a track from the disc (page 30)
  TRACK NAME - Give a track a name that will show up when the track is played (page 26)
  UNDO - Undo the last edit operation (page 31)

Programming the Track Order

This mode lets you program a sequence (a playlist) of up to 24 tracks to play. The order can be anything you choose. Tracks can appear more than once in the playlist, or can be left out entirely. The playlist applies only to the MD in the player at the time. Once you eject the disc, (or switch the power off), the playlist is lost. If you start recording, the playlist is also lost.



MD PROGRAM

1 Press MENU and select PROGRAM.

This menu option is only available when the disc is stopped.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

P-1 0:00

P-1 3 3:43

Track 3 programmed as the first item in the playlist

2 Select a track to add to the playlist using the ⏮ and ⏭ buttons

For example, to add track 3, press ⏭ three times. Or, to add the last but one track, press ⏮ twice.

P-1 3 MEMORY

This display appears briefly after pressing **SET**

3 Press SET to add the track to the playlist.

4 Repeat steps 2 and 3 to continue adding tracks to the playlist.

If you make a mistake, press **CANCEL** to delete the last (most recent) track programmed. (Delete multiple tracks by pressing **CANCEL** repeatedly.)

P-3 12:02

Display shows the number of tracks in the playlist and the total running time

5 When you're happy with the playlist, press MENU.

The playlist can be up to 24 tracks long.

6 Press MD button to start playback.

Checking the playlist order

You can only check the playlist order when the disc is stopped. Once stopped, you can step through the playlist using the ⏮ and ⏭ buttons. Each track number on the playlist is displayed together with the track length.

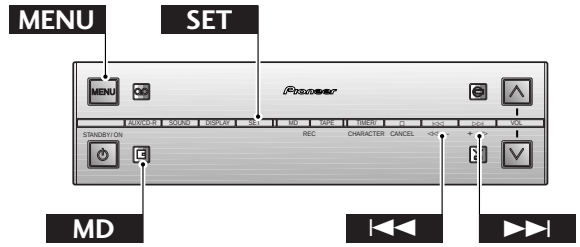
If you then press **CANCEL**, the total playing time of the playlist is displayed.

Deleting the playlist

If you want to delete the playlist without ejecting the disc, simply press **CANCEL** twice.

Playing Things Again

You can set the MD player to repeat just a single track, or the whole disc.



MD REPEAT

1 Press MENU and select REPEAT MODE.

This menu option is available when the disc is stopped, paused or playing.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET.**

REPEAT ALL ?

2 Select a repeat mode.

After setting a repeat mode, the display shows RPT for repeat all, or R1 for repeat track

Three options are available:

⏮ REPEAT TRK? ⏭
REPEAT OFF - REPEAT ALL?

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET.**

RPT 1 0:02

3 Start playback.

The repeat mode is indicated in the display while the disc is playing

In one track repeat mode, any track you choose will repeat. If you jump to another track (using track skip), then the new track will start repeating.

In all track repeat mode, whenever the end of the disc is reached, the player will jump back to the first track and continue playback. You're still free to skip tracks and use manual search.

Tip

You can use either of the repeat modes together with the program play mode.

Setting the repeat mode to **REPEAT ALL** plays the tracks in the playlist over and over. The display indicates the mode:

PR 6 0:02

In repeat track mode, just the current track in the playlist repeats. The display indicates the mode:

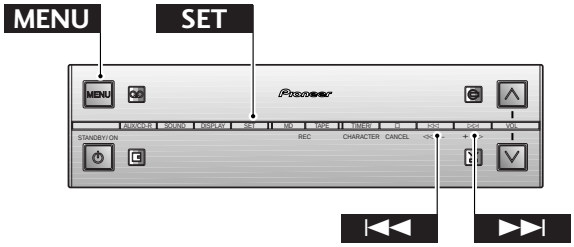
PR1 6 0:02

Note: The repeat mode you set stays active until you:

- ❖ select another repeat mode, or switch repeat mode off using the menu.
- ❖ eject the disc.
- ❖ switch to standby mode.

Playing Tracks at Random

To have the MD recorder play the tracks on a disc in a different order each time you play the disc, use the random play function. Each track will play just once, but the order will be random. When all tracks have been played, the disc stops.



MD RANDOM
DIGITAL

1 Press MENU and select RANDOM PLAY.

This menu option is available when the disc is stopped, paused or playing.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

RDM 6 0:02
DIGITAL

2 Playback begins automatically.

Pressing ☐ during random play stops playback, and random play mode is cancelled.

The display indicates that the recorder is in random play mode

Tip

You can use either of the repeat modes together with the random play mode.

Setting the repeat mode to **REPEAT ALL** endlessly plays all the tracks on the disc at random. The display indicates the mode:

RR 6 0:02
DIGITAL

In **REPEAT TRACK** mode, just the current randomly selected track repeats. The display indicates the mode:

RR1 6 0:02
DIGITAL

Recording Options

Although the MJ–L77 can make recording largely automatic, you can also manually control a number of settings if you prefer. For any kind of recording, including the synchro-recording modes covered on pages 14 and 15, you can:

- switch on or off the auto numbering feature
- switch the recording mode to stereo or long-play mono

When recording from an external component, or the internal CD player, you can also specify whether the MJ–L77 should record from the analogue or digital input.

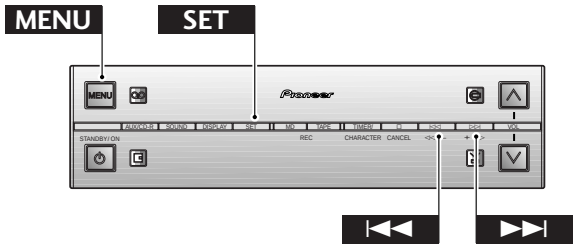
Numbering Tracks

Tip

Even if the track numbers that end up on a recording are not quite what you had in mind, you can change them later using the divide and combine editing features — see page 27 for more on this.

If you're recording from CD or MD via the digital input, track numbers are always automatically copied along with the audio. When recording other digital or analogue sources, Auto Mark (track numbering) works by detecting spaces (silence) in the source material. Although this usually works fine and is often convenient, there may be times when you'd rather have complete control over where the track numbers go as you record.

Once recording is underway (with Auto Mark on or off), you can start a new track number anytime by pressing the **MD REC** button.



By default, auto mark is on (the flag indicator is showing in the display)

1 Press MENU and select AUTO MARK.

This menu option is only available when the disc is stopped.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

2 Switch to ON or OFF using the ⏮ and ⏭ buttons.

Display after auto mark has been switched off (auto mark indicator disappears)

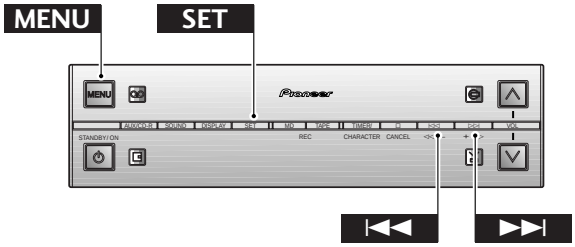
3 Press SET to exit the menu.

The flag symbol in the display lights when Auto Mark is on.

Note: If you record from the tuner, Auto Mark automatically switches off.

Recording Extra-Long Material

There may be times when you'd like to be able to record continuously for longer than the usual 74 or 80 minutes that MD provides for. The MJ–L77 has a long-play mode that doubles the available recording time on a disc at the cost of stereo recording. However, if you're recording a speech or an interview, for example, this is unlikely to be a great loss. You can freely mix long-play mono recordings and normal stereo recordings on the same disc—the recorder automatically detects the mode on playback.



MD REC MODE
DIGITAL

1 Press MENU and select REC MODE.

This menu option is only available when the disc is stopped.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

MONO LP ?
DIGITAL

2 Switch to MONO LP or STEREO SP using the ⏮ and ⏭ buttons.

Switch to mono for long-play

MD 6 54:04
DIGITAL MONO LP

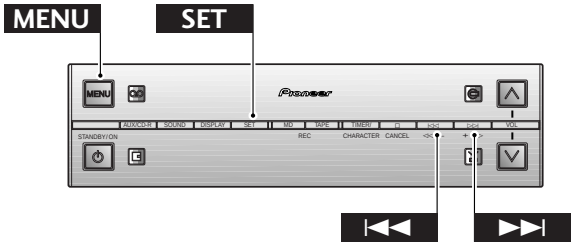
3 Press SET to exit the menu.

The **MONO LP** indicator lights in long-play mode

The **MONO LP** indicator in the display lights when **MONO LP** is selected.

Selecting Analogue Input Recording

When recording a CD from the CD receiver, you can specify that the recording should be via the analogue input of the MJ–L77 rather than the optical digital cable. This can be useful if you run up against an SCMS copying problem from a CD-R disc, for example. If the disc is copy protected you'll see the message **CAN'T COPY** in the display. If this happens, switch the input select to analogue, then start recording.



MD INPUT SEL.
DIGITAL

1 Press MENU and select INPUT SEL.

By default, auto input is active and the **DIGITAL** indicator is lit

This menu option is only available when the disc is stopped.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

ANALOG ?
DIGITAL

2 Switch to ANALOGUE (or AUTO) using the ⏮ and ⏭ buttons.

MD 6 54:04

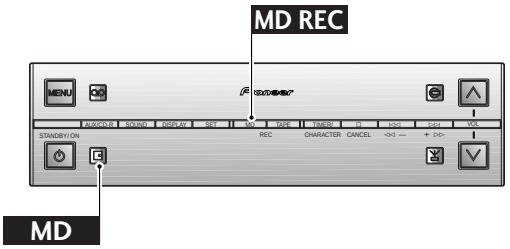
3 Press SET to exit the menu.

The **DIGITAL** indicator disappears when analogue input is selected

The **DIGITAL** indicator in the display lights when **AUTO** is selected.

Recording an Analogue Source

On pages 14 and 15 we covered synchro-recording from a CD or tape. Here's how to record any source, including a component connected via the AUX inputs on the CD receiver. (To record from a digital component directly see the following page.)



Auto mark is active; recording mode is stereo (standard play)

1 Prepare for recording.

- load a recordable MD
- switch on/off the auto mark (track numbering)
- switch record mode to stereo or mono long-play

Recording will be from the analogue auxiliary inputs

2 Switch to the source you're going to record.

For example, to record from the auxiliary input, press the **AUX** button (if the display shows AUX (Digital), press **AUX** again).

3 Prepare the source for recording.

Switch on the component and load the source material, etc.

The MD record indicator flashes in record-pause mode. During recording it remains lit

4 Press MD REC.

The MD recorder goes into record-pause mode.

5 Press the MD button to start recording.

Alternatively, press ▷/▯▯ on the MD recorder's front panel.

6 Playback the source (if necessary).

7 During recording:

- To pause the recording, press **MD** (or ▷/▯▯ on the front panel). To resume, press again.
- To start a new track on the MD, press **MD REC.**

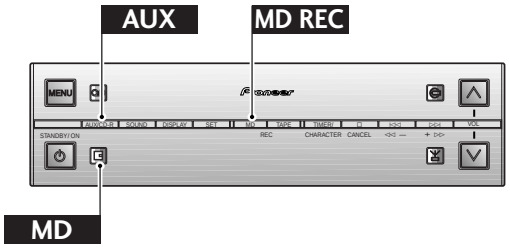
The record indicator disappears once you stop recording

8 When you're done, press □ to stop recording.

Eject the disc (press ⏏ on the front panel) before switching off the system.

Recording an External Digital Source

Recording an external digital source—a DAT or MD player, or digital satellite receiver, for example—via the optical digital input of the MJ–L77 follows much the same procedure as recording from an analogue source. You'll need to make sure that your auxiliary component is connected to both the CD receiver via an analogue connection (so that you can hear what you're recording), and to the MD recorder via an optical digital cable (so that the recording is digital). To do this, unplug the optical cable from the back of the CD receiver and plug it into the optical digital output on the external component.



MD 6 54:04
DIGITAL

Auto mark is active; recording mode is stereo (standard play)

1 Prepare for recording.

- load a recordable MD
- switch on/off the auto mark (track numbering)
- switch record mode to stereo or mono long-play

AUX (Digital)
DIGITAL

Recording will be to the digital input directly

2 Select AUX (Digital) on the CD receiver.

Press **AUX** repeatedly to switch between the analogue AUX inputs and the AUX (digital) setting.

3 Prepare the source for recording.

Switch on the component and load the source material, etc.

AUX (Digital)
DIGITAL

The MD record indicator flashes in record-pause mode. During recording it remains lit

4 Press MD REC.

The MD recorder goes into record-pause mode.

5 Press the MD button to start recording.

Alternatively, press ▷/▯▯ on the MD recorder's front panel.

6 Playback the source (if necessary).

7 During recording:

- To pause the recording, press **MD** (or ▷/▯▯ on the front panel). To resume, press again.
- To start a new track on the MD, press **MD REC.**

AUX (Digital)
DIGITAL

The record indicator disappears once you stop recording

8 When you're done, press □ to stop recording.

Eject the disc (press ⏏ on the front panel) before switching off the system.

Recording Over Unwanted Material

One of the convenient features of recording on MD is that the recorder automatically records on the next available section of the disc. Sometimes though, you'll want to record over something that's already on the disc. Unlike a cassette tape, all the material after the point at which you start recording is lost. So, if you just want to erase a track in the middle of the disc, use the erase track function intead (see page 30 for more on this), then simply record as usual.

If you do want to record from midway through a disc, here's how to do it:

MD paused on track 4

1 Find the place in the disc you want to record from and pause playback.

The track that you stop on will be completely overwritten, as well as all the tracks following.

Display prompts you to confirm that you want to overwrite the remainder of the disc

2 Press MD REC.

The display reminds you that you're about to overwrite the disc.

The MD record indicator flashes in record-pause mode

3 Press SET to confirm.

Alternatively, press **CANCEL** to abort record overwrite.

Recording will be from the analogue auxiliary inputs

4 Select the source and prepare for recording.

For example, press **AUX** and load up the source material.

The recording indicator lights steadily once recording has started

5 Press MD to start recording (if necessary).

Alternatively, press ▷/▯▯ on the front panel.

About MD Editing

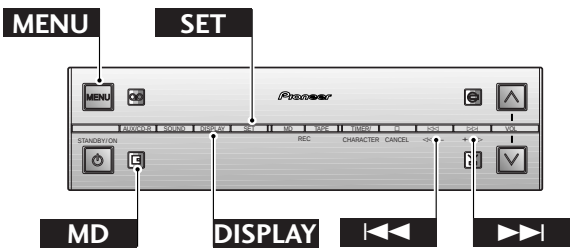
The MD system allows for very flexible editing of discs. Using the editing features described on the following pages you can easily: create names for discs and for individual tracks; combine two tracks into one long one, or divide a track into two short ones; move single tracks, or reorder a whole disc; erase tracks or erase the whole disc.

Not all of these functions are available in any mode: the table below shows what editing functions you have access to in each MD mode.

Disc mode/display	Disc name	Track name	Divide	Combine	Move	Pgm move	Erase	All Erase	Undo
Stopped/disc info	•							•	•
Stopped/track info		•		•	•		•		•
Stopped/program-play						•			
Playing/any		•							
Play-pause/any		•	•	•	•		•		
Recording/any		•							
Record-pause/any		•							

Naming a Disc

You can name a recordable MD so that when you load the disc into the recorder, the disc's name appears in the display. The name can be up to 100 characters long, including spaces. You can change disc names on recordable MDs (if you've recorded something else on the disc, for example), but you can't change the name of a playback-only disc.



1 Make sure the disc is stopped .

To be able to name the disc, the disc must be stopped with the disc information showing in the display.

2 Press MENU and select DISC NAME.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

Display shows a flashing cursor where the first character will go

3 Enter a name for the disc.

Names can be up to 100 characters long and can contain letters (upper and lower case), numbers, spaces and other symbols.

Continues

Tip

If you make a mistake, you can go back and correct the last character by pressing **DISPLAY**. To abort completely and start again, press **CANCEL**.

The character being selected flashes...

...until you press **SET**, then the cursor moves to the next position

Display showing the completed disc name

To select a character:

Use the **CHARACTER** button to switch between character lists:

Alphabet (uppercase) - Alphabet (lowercase) - numbers (0-9)/punctuation/symbols

Use the |◁◁ and ▷▷| buttons to select a character from the current list:

ABCDEFGHIJKLMNOPQRSTUVWXYZ . , ' / <space>

abcdefghijklmnopqrstuvwxyz . , ' / <space>

0123456789

! " # $ % & ' ( ) * + , - . / : ; < = > ? @ _ ` <space>

Press **SET** to enter the character.

The cursor moves to the next character position ready for you to input another character.

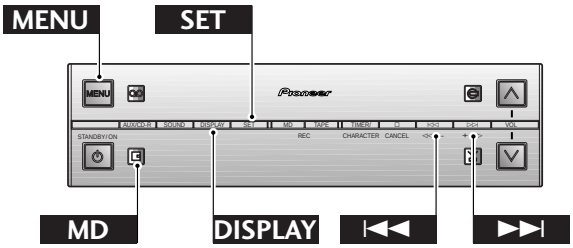
4 When you've finished naming the disc, press MENU to exit.

Naming a Track

Tip

If the name of a disc or track contains only spaces, the recorder regards it as no name. You can take advantage of this to delete disc or track names by simply inputting a space then pressing **MENU** to exit.

In addition to naming the disc, you can name each track on a disc too. Again, the names can be up to 100 characters long.



1 Select the track on the disc you want to name.

You can name tracks in any mode, but if the disc is stopped, the track must still be selected—use the |◁◁ and ▷▷| buttons to select tracks in stop mode.

If the disc is playing or recording, you must finish entering the name before the track finishes, otherwise only the characters input before the track ends will be entered. Don't worry—you can still edit the name later.

2 Press MENU and select TRACK NAME.

Remember: switch between menu options using the |◁◁ and ▷▷| buttons; select the option by pressing **SET**.

Note

There is no delete or insert function available. If you make a mistake, you have to cancel the whole naming process by pressing **CANCEL** and starting again from step 2.

3 Enter a name for the track.

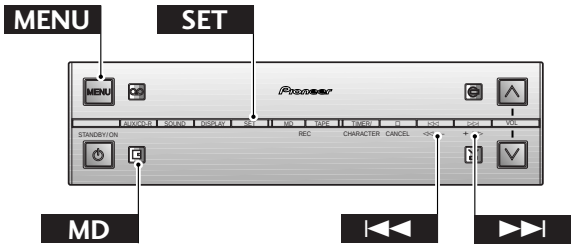
The input method is exactly the same as for naming discs above.

4 When you've finished naming the disc, press MENU to exit.

Dividing a Track into Two

If you recorded two pieces of music that run into each other without a break through the analogue inputs, the recorder wouldn't have automatically given them their own track numbers. After the recording is complete, you might want to assign the two tracks different track numbers. Use the divide function to do this. The recorder inserts the new track number and moves all the subsequent tracks up one automatically.

You can split any track into two at anytime using the divide function, so you can, for example, divide up a long track into several parts for easy searching, and so on.



1 Start playing the track you want to divide.

Display showing MD paused on track 3 at 6:50

2 Press the MD button at the point where you want to divide it.

The recorder pauses playback. (You can also use the ▷/▯▯ button on the front panel to do this.)

3 Press MENU and select DIVIDE.

Remember: switch between menu options using the |◁◁ and ▷▷| buttons; select the option by pressing **SET**.

4 Confirm that you want to divide the track.

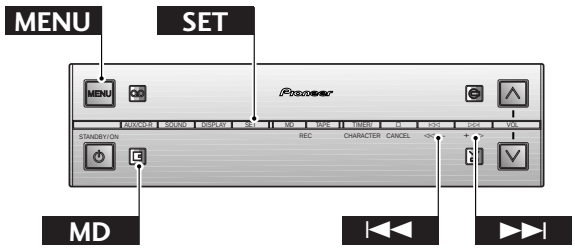
Press **SET** to divide the track, or **CANCEL** to cancel the edit. The display shows **COMPLETE** once the edit has been made.

Combining Two Tracks into One

If there are two consecutive tracks on a disc that you'd rather were a single track, you can 'glue' them together using the Combine function. All the tracks following the newly combined tracks are automatically renumbered.

There are a few limitations when using this feature: it will not work if either track is less than 12 seconds long; you cannot combine two tracks if one of them is recorded in long-play mode while the other is in stereo; and you can't combine tracks if one was recorded using the digital input and the other using the analog inputs.

If both the tracks are named, then the new single track takes the name of the first track. If only one track is named then the new track takes that name.



MD 4 4:12
DIGITAL

Display shows track 4 selected. Tracks 3 and 4 will become one track after combining

1 During playback of the later track of the two, press the MD button.

The recorder pauses playback. (You can also use the ▷/▯▯ button on the front panel to do this.)

Combine only works with two consecutive tracks, so if you wanted to combine tracks 3 and 4, pause during playback of track 4.

Note: If you want to combine two tracks which are not consecutive, you'll have to first move them next to each other—see below for how to do this.

MD COMBINE
DIGITAL

2 Press MENU and select COMBINE.

Remember: switch between menu options using the ⊲⊲ and ▷▷ buttons; select the option by pressing **SET**.

COMB 3+ 4?
DIGITAL

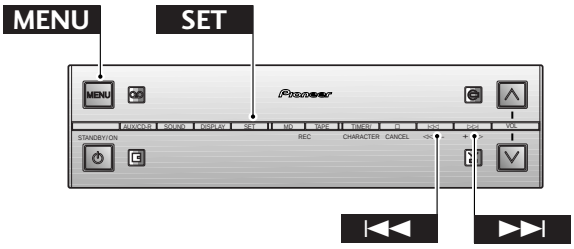
3 Confirm that you want to combine the tracks.

Press **SET** to combine the tracks, or **CANCEL** to cancel the edit. The display shows **COMPLETE** once the edit has been made.

COMPLETE
DIGITAL

Moving Tracks on a Disc

Although you can use the program playback feature to play a disc out of the 'regular' track order, you can also edit the track order itself so that the disc permanently plays in a different order (unless, of course, you edit the track order again). If you just want to move a track or two to a different position on the disc, it's probably quickest to use this feature; if you want to seriously change the order of the whole disc, use the Reorder feature described on the next page in *Reordering Tracks on a Disc*.



MD 4 4:12

Display shows track 4 selected

1 Select the track you want to move.

The disc can be stopped (with the track information shown in the display), or in play-pause mode.

MD MOVE

MOVE 4→ 1?

Display after pressing **SET**

2 Press MENU and select MOVE.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

MOVE 4→ 6?

Track 4 will become the new track 6 (the current tracks 5 and 6 will become 4 and 5)

3 Use the ⏮ and ⏭ buttons to select a new track number, then press SET.

The display shows the track your moving and its new number. You can't select a track number higher than the total number of tracks on the disc.

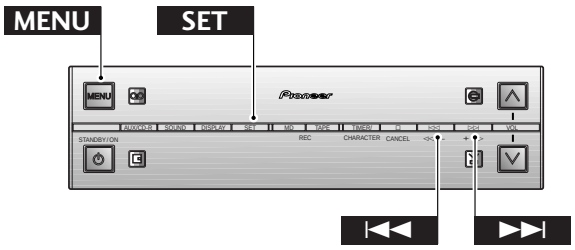
COMPLETE

4 Confirm that you want to move the track.

Press **SET** to move the track, or **CANCEL** to cancel the edit. The display shows **COMPLETE** once the edit has been made.

Reordering Tracks on a Disc

The track reorder feature takes the play order you've programmed for the disc using the program play feature (see page 17), and reorders the tracks on the disc accordingly. If you want to change the position of more than a couple of tracks on the disc, it's probably quicker to do it this way than use the move track function described on the previous page.



P-9 62:40

A 9-track MD with the playlist programmed (running time of the playlist is also displayed)

1 Program the track playback order.

See page 17 for more on how to do this.

Note: If you program fewer tracks than are on the disc, those tracks will appear at the start of the disc, while the remainder will be left in the original order at the end of the disc.

MD PGM MOVE

2 Press MENU and select PGM MOVE.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

PGM MOVE?

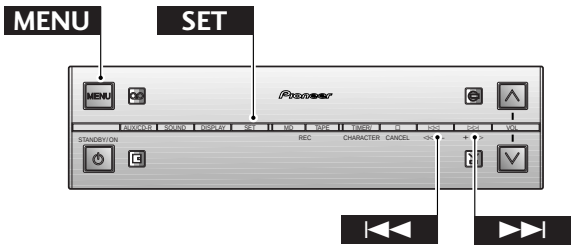
COMPLETE

3 Confirm that you want to reorder the tracks.

Press **SET** to reorder the tracks, or **CANCEL** to cancel the edit. The display shows **COMPLETE** once the edit has been made.

Erasing Tracks on a Disc

Erasing unwanted tracks on a disc frees up disc space for further recording. When you erase a track, all the tracks following it are automatically renumbered. Erasing the whole disc erases not only all the tracks on the disc, but also the disc name (if you've entered one).



Erasing all tracks on the disc

Display shows disc with 9 tracks recorded

1 Make sure the disc is stopped .

To be able to erase the disc, the disc must be stopped with the disc information showing in the display.

2 Press MENU and select ALL ERASE.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

3 Confirm that you want to erase the disc.

Press **SET** to erase, or **CANCEL** to cancel the edit. The display shows **COMPLETE** once the edit has been made.

Erasing individual tracks

Display shows track 4 selected

1 Press MD while playing the track you want to erase to pause the disc.

Alternatively, press ⏯ on the front panel.

2 Press MENU and select ERASE.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

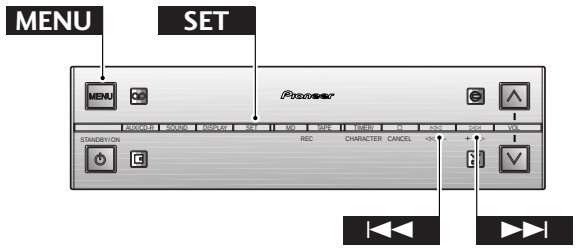
3 Confirm that you want to erase the track.

Press **SET** to erase, or **CANCEL** to cancel the edit. The display shows **COMPLETE** once the edit has been made.

Undoing a Mistake

Although the MJ–L77 always lets you abort an edit before completing it, there will probably still be times when you complete an edit operation only to find that it wasn't what you had intended. As long as you haven't switched the power off, updated the UTOC by ejecting the disc, or recorded anything else on the disc, you can still undo the last edit operation.

The only exceptions to this are the undo operation itself (i.e., you can't redo an edit), and track/disc naming while in record mode.



1 Make sure the disc is stopped.

Note: You can't use undo if the recorder is in program play mode.

MD UNDO

2 Press MENU and select UNDO.

Remember: switch between menu options using the ⏮ and ⏭ buttons; select the option by pressing **SET**.

UNDO ?

3 Confirm that you want to undo the last edit.

Press **SET** to undo, or **CANCEL** to cancel. The display shows **COMPLETE** once the undo is complete.

COMPLETE

Understanding Error Messages

Message	Description	Action
NO DISC	• MD is not loaded. • The MD data cannot be read.	• Load an MD. • Reload the MD.
DISC ER *	• The disc is damaged. • The MD does not contain the TOC or the data is corrupted.	• Reload the MD. • Use another MD.
?DISC	• The data is corrupted or the MD is out of standard.	• Use another MD.
DISC FULL	• The MD has no space available for recording.	• Use another recordable MD.
BLANK DISC	• The MD does not contain any recorded information (including disc name information).	• The disc is ready to be recorded on.
Playback MD	• An attempt is made to record or edit a playback-only MD.	• Use a recordable MD.
PROTECTED	• The MD is protected against accidental erasure.	• Release the accidental erasure protection.
TOC FULL	• The disc does not have the space for recording the track number and character data (including disc/track names).	• Use another recordable MD.
Can't REC	• Recording cannot be completed successfully due to shock or disc damage.	• Restart recording or use another MD.
TEMP OVER	• The temperature is too high.	• Turn power off and leave to cool.
Can't EDIT	• Editing is not possible.	• Retry at another position on the disc.
NAME FULL	• There is no space left for registering a disc/track name.	• Shorten the disc/track name.
DEFECT	• Recording interrupted due to disc damage.	• Use another recordable MD.
MECHA ER*	• The MD recorder is not functioning properly.	• Turn power off then on again.
Can't COPY	• An attempt is made to record copy-prohibited material.	• Use a copy-permitted source (an ordinary CD, etc.). • Record via the analog input.
NOT AUDIO	• The disc contains non-audio data.	• Use another track. • Use another MD.
UTOC ER W	• The UTOC data cannot be written properly due to physical shock or disc damage.	• Turn power off and on again, then retry UTOC writing. Do not to expose the unit to any physical shock during UTOC writing.
UTOC ER*	• The recorded UTOC data is not conforming to the MD standard or is otherwise illegible.	• Use another MD. • Use the all erase function and record the MD from the beginning.
DIN UNLOCK	• The signal at the digital input is not recognized by the recorder.	• Check the connections, and the out-put mode of the source component.
TOC ERR*	• The disc is scratched or otherwise damaged. • The TOC data cannot be read. • The MD is out of standard.	• Use another MD.
SIO ERROR	• Internal communication in the unit has broken down.	• Turn power off then on again.

Note: Error messages marked with an asterisk are followed by a number or other symbol.

Troubleshooting

It's often easy to mistake incorrect operation for trouble and malfunction of the unit. If you think there is something wrong with the component, check the points below first. If the problems persists, contact your nearest Pioneer-authoriorized service center and have them check over the unit.

Symptom	Possible Causes	Remedy
No sound.	• The power cable is unplugged. • Connection cords aren't connected properly.	• Connect to an AC power outlet. • Connect the cables correctly; see *Connecting Up* on page 9.
Can't record.	• The MD is protected against accidental erasure. • A playback-only MD is in use. • The TOC is full (this may occur after repeated recording and editing operations). • The optical cable is not connected properly.	• Close the accidental erase-protect tab (see page 6). • Use a recordable MD. • Execute the all-track erase command and record the disc from the beginning. • Connect correctly (see page 9).
Can't record in stereo.	• The MD recorder is in long-play mono recording mode.	• Use the stereo recording mode (see page 20).
No Disc is displayed when an MD is loaded.	• Damaged disc.	• Use another MD.
Sound is intermittent.	• Condensation inside the MD recorder.	• Leave the MD recorder for about an hour before retrying playback.
The remaining recording time doesn't increase even after erasing some short tracks.	• Tracks shorter than 12 seconds are sometimes not counted in the recording time information.	• This is not a malfunction.
The total of the recorded time and remaining recording time of an MD doesn't match the maximum recording time of the MD.	• All tracks consist of a number of two-second blocks. Often, the end of a track will not fall right at the end of one of these blocks. As a result, the actual available recording time may be slightly shorter than the value calculated based on the displayed time information. • The disc contains a damaged section, making that part unusable.	• This is not a malfunction. • Use another MD.
Tracks cannot be combined.	• The MD has been repeatedly re-recorded and edited • One of the tracks was recorded using the digital input, while the other was recorded using the analog input. • One track was recorded in LP mono mode, while the other in standard stereo mode.	• This is not a malfunction. • It is not possible to record two tracks recorded in different modes. • It is not possible to record two tracks recorded in different modes.

❖ It is possible that this unit will cause interference on nearby television sets, especially if you're using the TV with an indoor antenna. If you experience this problem, either use an outdoor television antenna, or move the MD player away from the television.

❖ Static electricity and other external interference can cause the unit to temporarily malfunction. Try swtiching the power off and unplugging from the wall outlet, then plugging in and switching on again.

Specifications

Recording method	Magnetic field modulation overwriting type
Playback method	Non-contact optical type
Sampling frequency	44.1 kHz, 32 kHz, 48 kHz
Frequency response	20 Hz - 20 kHz
Signal-to-Noise ratio	98 dB
Wow and flutter	Limit of measurement (±0.001% W.PEAK) or less (EIAJ)
Power requirements	AC 230V, 50/60 Hz
Power consumption	18 W
Power consumption in standby mode (when connected to XC-L77)	0,9 W
Dimensions	220 (W) x 75 (H) x 310 (D) mm
Weight	2.6 kg

Accessories

Operating instructions	1
Optical digital cable	1
Power cable	1
Warranty card	1

Note: Specifications and design subject to possible modification without notice, due to improvement.

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

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